

ENVIRONMENTAL MEMORANDUM

Red Chris Development Company Ltd.
200–580 Hornby Street, Vancouver, BC V6C 3B6

Date: December Jan 26, 2016

Distribution: Red Chris Monitoring Committee

Cory Koenig, Chantel Quock, Jason Nole, and Blaine Lindstrom Environmental Technicians;

From: Mike Polywkan, Environmental Scientist;
Jack Love, Environmental Superintendent

Re: Red Chris Monitoring Committee Environmental Report Jan 12 – Jan 26, 2016

Weather:

Temperatures range from -16°C to -7°C. There's been very little to no snowfall and temperatures have been staying mostly in the lower range until after the 12th when the temperatures have been consistently just below freezing.

General Activities:

- Drilling, blasting, and mining in the pit.
- Extending the footprint of the Rock Storage Area (RSA).
- Replacing frozen pipes in the Tailings Impoundment Area (TIA).
- Ongoing search for water in and around the mine site, for mining production, as the area is scarce for water sources.
- Drilling in the North and South of the TIA.

Spills and Incidents:

- No spills to report.

Water Management:

- Drilling in the South TIA had brought up some water drainage issues that are being worked on to prevent cuttings from the drill reaching Trail Creek. A sump is in place to help water to settle out with the final spillway going through a series of sediment fencing before it can reach the creek. The water soaked into the ground before it even made it to the sump.
- The 5 samples in 30 days' program for monitoring the pit sump incident have been completed as of January 13.
- Started the 2016 quarterly groundwater monitoring program in the RSA and some of the north TIA.
- Routine bi-weekly sampling, W69 was not collected because it is completely frozen.
- Monthly geochemical sampling in the mill has been completed. A new sampling area has been added to the Standard Operating Procedures (SOP), which will be the SAG Mill.
- The culvert installed at the bottom of the repeater station is ice jammed and overflowing on the surface. A new structure will need to be sought to provide a safe, sturdy low maintenance and environmentally sound crossing, with a waterway opening large enough to pass peak flows and ice jams. Choosing an area to cross is difficult with the current conditions. The crossing has been put on hold for the time being until a proper solution can be reached.
- The North Reclaim Dam Discharge (NRDD) Weir is completely full of ice, thawing of ice can cause implications in the spring.

Waste Management:

- Lagoon blowers have been operating without interruption but it is unlikely that the lagoons are getting any aeration as both lagoons are completely frozen over. The decision has been made to shut them down until spring. Monitoring will be continued per usual and will be documented. It does not look like there will be any need to discharge at all this winter.

- Waste Management Guidelines signoff sheets is still an ongoing process, the Environmental department has not received everyone's signature.
- A waste management presentation was held in the mill lunch room for The mill maintenance and site services group on January 22 at 5:30am. Their supervisors will photocopy the sign off sheets and forward them to our department.
- Lift truck operators and staff have been notified that waste just dropped off at the waste area will be returned to their respective departments if it is not sorted and disposed of correctly.
- Burning permit for TIA has been extended until January 25th.

Fuel Management:

- The monthly fuel bay inspections had failed the month of January. Snow has been shoveled out of both fuel bays and are now in compliance. The TIA bay has been mothballed for the winter as it's been confirmed the tanks are empty.

Wildlife Management:

- Cow and calf continue to be spotted near the bunk houses grazing vegetation and licking the salt off of the walkway.

Photos:



Figures 1 & 2: Jan 11 – The NRDD weir has filled with ice from non-contact seepages.



Figure 3: Jan 11 – Large chunks of ice have been cleaned up around the pit sump (water sample site W75) and there is no further drainage into Camp Creek.



Figure 4: Jan 11 – Above the North Reclaim Dam spillway there's been water flowing through the road and down into the catchment ditch and the spillway itself.



Figure 5: Jan 11 – A view from below the road pictured above.



Figure 6: Jan 11 – The crossing of Camp Creek to the new pit repeater station location.



Figure 7: Jan 11 – Waste sample site TC2(2nd site on Trail Creek) still has no sign of water.



Figure 8: Jan 11 – There is a plan being developed to recycle HDPE shavings from fusing pipes.



Figure 9: Jan 14 – Proper waste disposal and organization continues to be a challenge.



Figure 10: Jan 15 – Building the laboratory for preparation of water samples is coming along well.

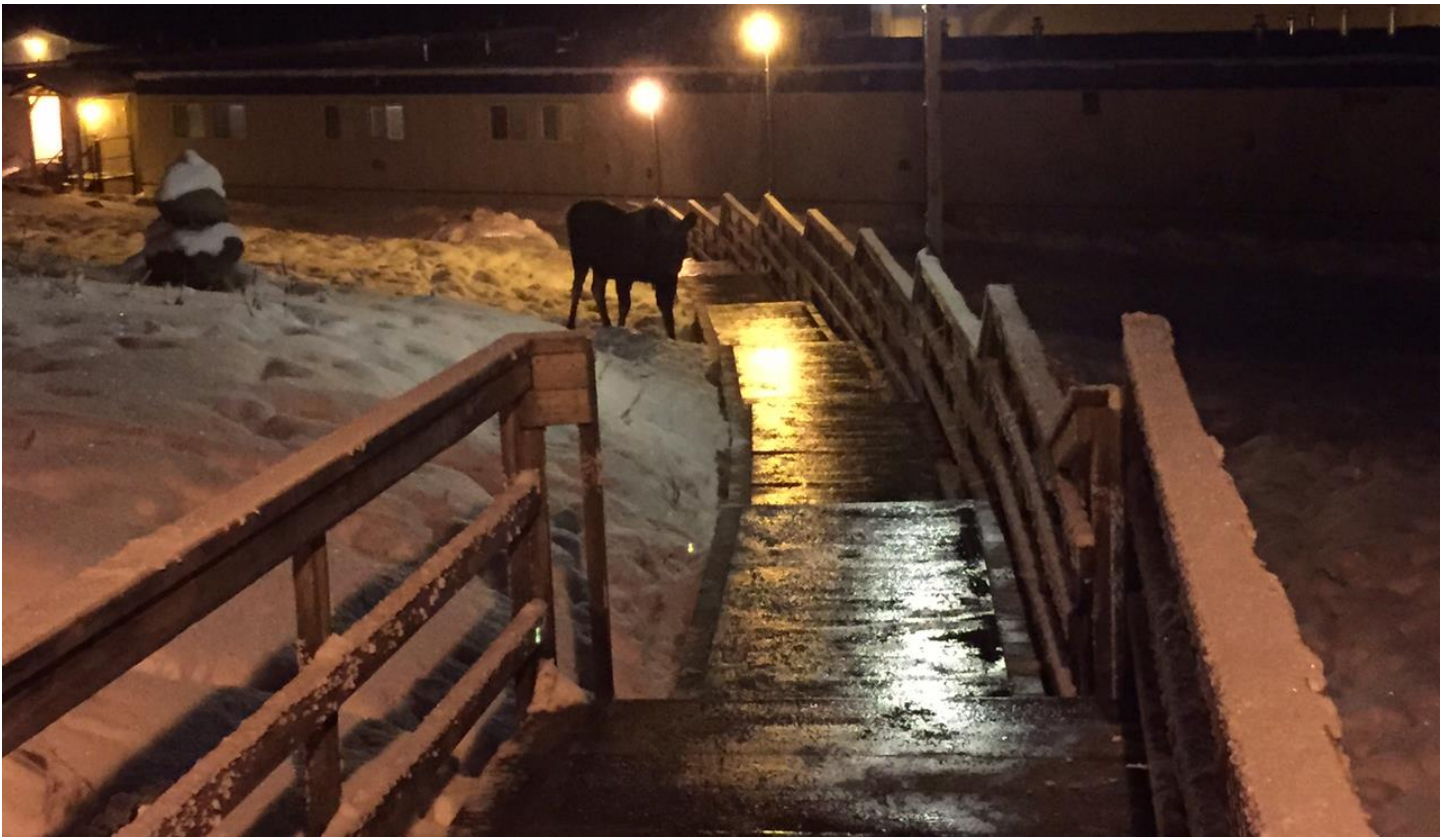


Figure11: Jan 18 – The maintenance staff had started using salt again to melt the snow on the back walkway to the parking lot. This had attracted the moose once again.



Figure 12: Jan 20-The water and cuttings didn't even make it to the sump before the water soaked into the ground.



Figure 13: Jan 22 - Lagoon 1 – There is not much hope in aerating a completely frozen over lagoon.